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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,145	07/07/2003	Winchester E. Latham	10842/016	7715

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EXAMINER

BOMAR, THOMAS S

ART UNIT PAPER NUMBER

3672

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,145

Applicant(s)

LATHAM, WINCHESTER E.

Examiner

Shane Bomar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/27/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 14-18 are objected to because of the following informalities: the claims all depend from claim 14 (even claim 14 itself), although it appears that the applicant meant for these claims to depend from claim 13. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,508,516 to Kammerer in view of US patent 5,931,542 to Britzke et al.

Regarding claim 1, Kammerer teaches in Fig. 1 a cutter tool that comprises:

- A tool holder 20 including a holder surface 22 having a bore 21 extending rearward through the holder surface 22, a relieved portion surrounding the bore and defining an inner edge of the holder surface (one can clearly see the relieved portion tapering down from surface 22 into the bore 21), and an outer edge spaced from the bore 21;

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- a cutting bit 11 including a body having a front cutting tip 12, a rearward projecting shank 14 rotatably mounted in the bore, and a rearward facing bit shoulder below collar 13 disposed at a front end of the shank 14, wherein the shank 14 is rotationally symmetric about a longitudinal axis 18 of the bit 12; and
- a washer 30 is disposed between the bit shoulder and the holder surface 22, the washer comprising a front surface 32 including a portion in sliding engagement with the bit shoulder, a back surface 31 contacting the holder surface 22, an inner bore receiving the shank, and an axially asymmetric lip 33 joining outer perimeters of the front and back surfaces, the lip 33 engaging a portion of the holder surface outer edge 25 so as to inhibit rotation of the washer relative to the holder surface 22 (see col. 2, lines 60-67).

However, Kammerer does not teach that the washer 30 includes an axially symmetric protruding portion received in the relieved portion of the tool holder bore 21 to inhibit lateral motion between the washer and the holder.

Britzke et al teach a cutter tool with a washer that is prevented from rotating similar to that of Kammerer. In addition, Britzke et al teach that the washer 50 has an axially symmetric protruding portion 54 received in the relieved portion 14 of the tool holder bore 20 to inhibit lateral motion between the washer and the holder (see Figs. 1-3 and col. 3, lines 12-30). It would have been obvious to one of ordinary skill in the art, having the teachings of Kammerer and Britzke et al before him at the time the invention was made, to modify the washer taught by Kammerer to include the axially symmetric protruding portion of Britzke et al, in order to obtain a washer that has further wear reduction. One would have been motivated to make such a

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combination since Britzke et al has shown it to be notoriously known in the art to use a washer with an axially symmetric protruding portion between a bit shoulder and a holder to inhibit lateral motion between the washer and the holder, and because the combination would provide a back-up means for limiting the rotation and movement of the washer, i.e., if lip 33 of Kammerer were to break, then the protruding portion 54 of Britzke et al would continue to limit the rotation and movement of the washer.

Regarding claim 2, the combination teaches the cutter tool of claim 1 that further comprises a sleeve 40 surrounding the shank 36 including a forward edge confronting the back surface of the washer to retain the washer on the cutting bit adjacent to the rearward facing bit shoulder (see Figs. 3-6, and col. 3, lines 41-67 of Britzke et al).

Regarding claims 3 and 4, the combination teaches the cutter tool of claim 1 wherein the lip 33 is a linear rearward extension along an outer edge of the back surface 31 of the washer 30 (see Fig. 1 of Kammerer).

Regarding claim 7, the combination teaches the cutter tool of claim 1 wherein the washer has a front surface with an inner tapered portion 54 (see Figs. 1 and 3 of Britzke et al). However, it is not expressly taught that the front surface includes an outer tapered portion. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to also have the outer edge of the washer tapered in order to provide a washer with smooth edges all around.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammerer in view of Britzke et al as applied to claim 1 above, and further in view of US patent 4,380,413 to Dewey or in view of US patent 2,613,964 to Hoher.

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The combination applied to claim 1 above teaches a circular washer with a lip extending from one edge for inhibiting rotation of the washer. However, the combination is silent with regard to varying the shape of the washer, including making the washer elliptical. Dewey teaches a washer that can be square, round, or elliptical (see col. 4, lines 7-10). Hocher teaches an elliptical washer, although it is further taught that the outline is not important (see Fig. 7 and col. 6, lines 20-24 of Hocher). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to change the shape of the washer taught by the combination to an ellipse or rectangle since Dewey and Hocher have shown that changing the shape of a washer was a practice notoriously known in the art.

5. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammerer in view of Hocher.

Regarding claim 8, Kammerer teaches in Figure 1 a cutter assembly comprising a cutting bit 11 and a washer 30, the cutting bit comprising a body forming a forward cutting tip 12, a rearward extending shank 14, and a rearward facing bit shoulder below collar 13 disposed at a forward end of the shank; the shank being rotationally symmetric about a longitudinal axis of the cutting bit, the washer including an inner edge defining a central hole receiving the cutting bit shank, a front surface 32 and a back surface 31 joined by an outer edge, the front surface including an outer inherently tapered portion and an inner tapered portion (inherent because the outer edge of the washer could be tapered in order to provide a washer with smooth edges all around), both tapered portions tapering away from a circular line in sliding contact with the rearward facing bit shoulder, and an outer edge including an asymmetric lip 33 for engaging an outer shoulder of a holder to inhibit rotation of the washer relative to the holder (see col. 2, lines

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60-67). However, it is not expressly taught that the outer edge of the washer has an angularly variable radius.

Hocher teaches a washer with an inner edge defining a central hole similar to that of Kammerer. It is further taught that the outer edge of the washer 16 has an angularly variable radius, i.e., in the form of an ellipse (see Fig. 7). It would have been obvious to one of ordinary skill in the art, having the teachings of Kammerer and Hocher before him at the time the invention was made, to modify the washer taught by Kammerer to include the elliptical shape of Hocher. One would have been motivated to make such a combination since Hocher has shown it to be notoriously known in the washer art to substitute elliptical washers for circular ones.

Regarding claim 9, the combination teaches the cutter tool of claim 8 that further comprises a sleeve 15 surrounding the shank 14 including a forward edge confronting the back surface of the washer to retain the washer on the cutting bit adjacent to the rearward facing bit shoulder (see Figs. 1-2, and col. 2, lines 29-42 of Kammerer).

Regarding claim 10, the combination teaches the cutter tool of claim 9 wherein the washer 30 includes a smooth inner bore that facilitates the rotation of the cutting bit relative to the washer (see Figs. 1-2 of Kammerer wherein dashed lines show a smooth inner bore in the washer).

Regarding claim 11, the combination teaches the cutter tool of claim 10 wherein the lip 33 is a linear rearward extension along an outer edge of the back surface 31 of the washer 30 (see Fig. 1 of Kammerer).

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Regarding claim 12, the combination teaches the cutter tool of claim 10 wherein the back surface of the washer includes an axially symmetric protruding portion 19 for inherently inhibiting lateral movement of the washer (see Fig. 8 of Hoher).

6. Claims 13-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,113,195 to Mercier et al in view of Hoher.

Regarding claim 13, Mercier et al teach a washer 40a comprising a front surface 44a and a back surface 48a, an inner edge 56 connecting the front and back surfaces and defining a central hole about an axis A passing through the central hole, an outer asymmetric edge 50, the back surface including an annular protrusion 60 immediately surrounding the central hole and the front surface including a ring shaped elevated portion 44a between the inner and outer edges (see Figs. 3-4 and col. 3, lines 45-61). It is not expressly taught that the outer edge is of an angularly variable radius from the axis connecting the front and back surfaces.

Hoher teaches a washer with an inner edge defining a central hole similar to that of Mercier et al. It is further taught that the outer edge of the washer 16 has an angularly variable radius, i.e., in the form of an ellipse (see Fig. 7). It would have been obvious to one of ordinary skill in the art, having the teachings of Mercier et al and Hoher before him at the time the invention was made, to modify the washer taught by Mercier et al to include the elliptical shape of Hoher. One would have been motivated to make such a combination since Hoher has shown it to be notoriously known in the washer art to substitute elliptical washers for circular ones.

Regarding claim 14, the combination teaches the cutter tool of claim 13 wherein the washer 40a includes a smooth inner bore 56 that facilitates the rotation of the cutting bit relative to the washer (see Figs. 3-4 of Mercier et al).

Regarding claim 15, the combination teaches the cutter tool of claim 13 wherein the outer edge may be rectangular (see col. 6, lines 20-24 of Hocher).

Regarding claim 18, the combination teaches the cutter tool of claim 13 wherein the ring shaped elevated portion of the front surface is defined by an outer tapered portion 50 and an inner tapered portion 56, both tapered portions tapering away from the ring shaped elevated portion (see Fig. 3A of Mercier et al).

7. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mercier et al in view of Hocher as applied to claim 13 above, and further in view of Kammerer.

The combination applied to claim 13 above teaches the washer with an outer edge and front and back surfaces. It is not expressly taught that the outer edge comprises a linear rearward extension, or lip, along an outer edge, or the major axis of the ellipse, of the back surface of the washer.

Kammerer teaches a washer with an outer edge and front and back surfaces similar to that of the combination. It is further taught that a linear rearward extension, or lip, lies along an outer edge of the back surface of the washer (see Fig. 1). It would have been obvious to one of ordinary skill in the art, having the teachings of the combination and Kammerer before him at the time the invention was made, to modify the washer taught by the combination to include the lip of Kammerer and to place it on the major axis of the elliptical outer edge, in order to obtain limited rotation of the washer, as taught by Kammerer. One would have been motivated to make

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such a combination since Kammerer has shown it to be notoriously known in the washer art to add a lip for this purpose.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,692,083. Although the conflicting claims are not identical, they are not patentably distinct from each other because the current limitation of an axially symmetric protruding portion, or protrusion, is similar in function to the limitation of an axially symmetric tapered surface of the patented claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ikeda et al teach another washer of interest.

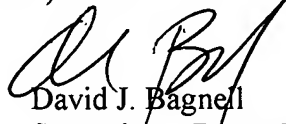
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 703-305-4849. The


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examiner can normally be reached on Monday - Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Fridays. NOTE: After 03/31/2005, the examiner's telephone number will change to 571-272-7026.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

tsb 
March 15, 2005